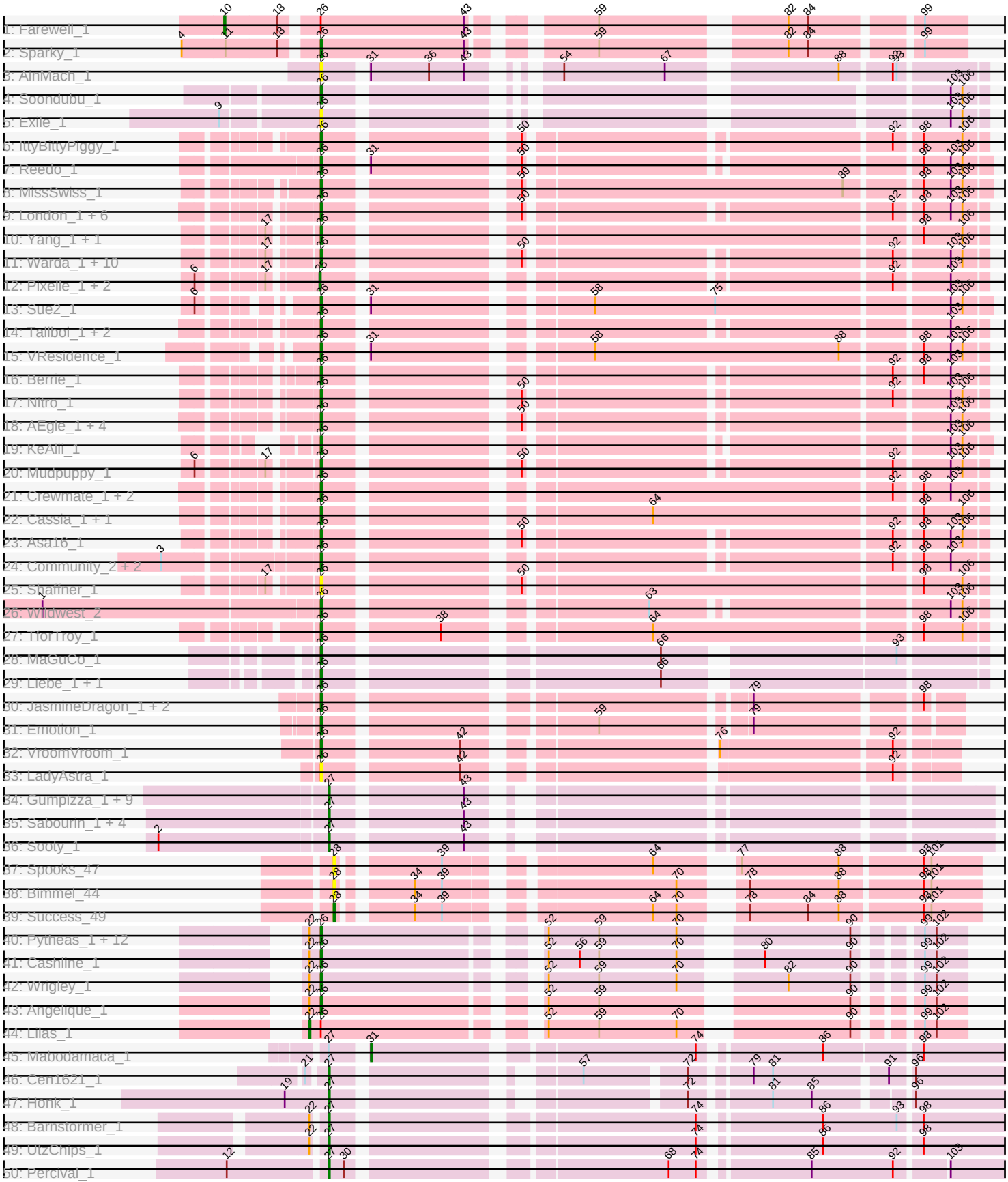
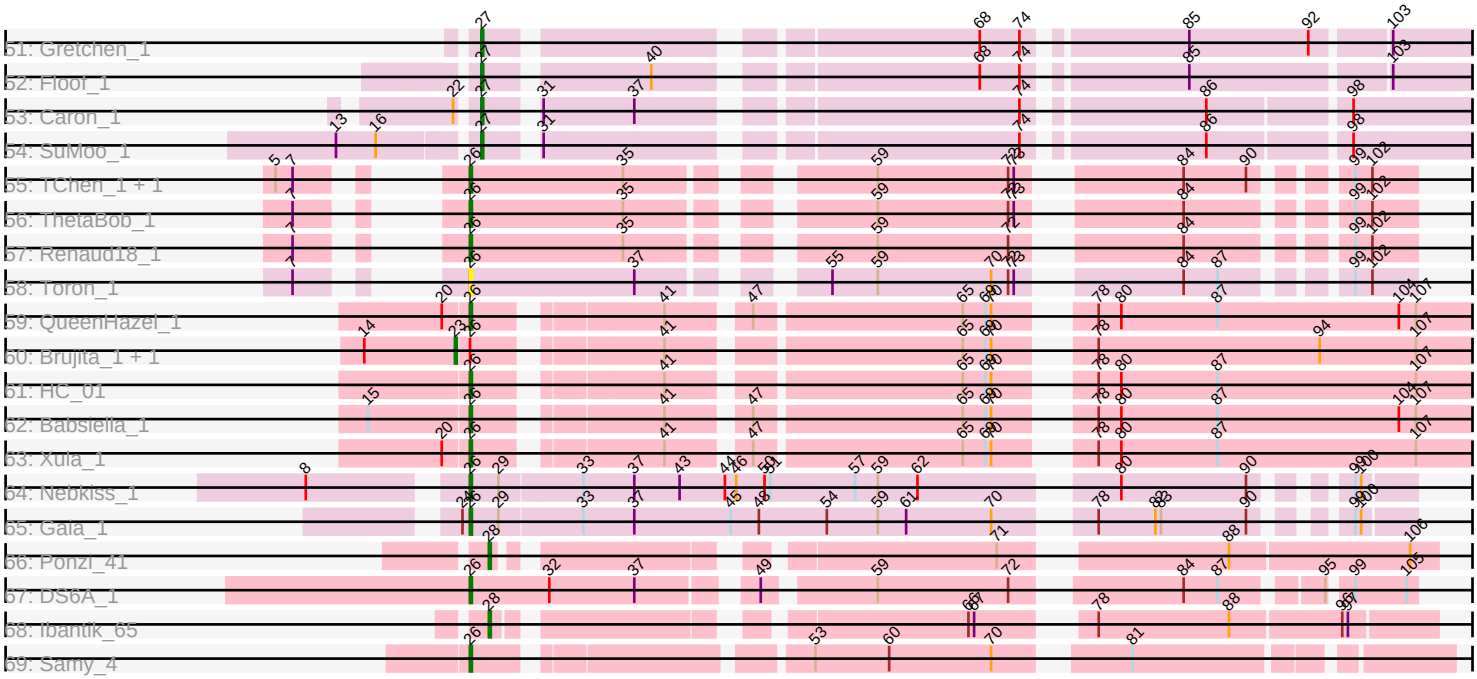
Pham 224399


1: Farewell_1
2: Sparky_1
3: AinMach_1
4: Soondubu_1
5: Exile_1
6: IttyBittyPiggy_1
7: Reedo_1
8: MissSwiss_1
9: London_1 + 6
10: Yang_1 + 1
11: Warda_1 + 10
12: Pixelle_1 + 2
13: Sue2_1
14: Tallboi_1 + 2
15: VResidence_1
16: Bernie_1
17: Nitro_1
18: AEgle_1 + 4
19: KeAlli_1
20: Mudpuppy_1
21: Crewmate_1 + 2
22: Cassia_1 + 1
23: Asa16_1
24: Community_2 + 2
25: Shamer_1
26: Wildwest_2
27: TorTroy_1
28: MaGuCo_1
29: Liebe_1 + 1
30: JasmineDragon_1 + 2
31: Emotion_1
32: VroomVroom_1
33: LadyAstra_1
34: Gumpizza_1 + 9
35: Sabourin_1 + 4
36: Sooty_1
37: Spooks_47
38: Bimmel_44
39: Success_49
40: Pytheas_1 + 12
41: Cashline_1
42: Wrigley_1
43: Angelique_1
44: Lilas_1
45: Mabodamaca_1
46: Cen1621_1
47: Honk_1
48: Barnstormer_1
49: UtzChips_1
50: Percival_1

Pham 224399


51: Gretchen_1
52: Floof_1
53: Caron_1
54: SuMoo_1
55: YChen_1 + 1
56: ThetaBob_1
57: Renaud18_1
58: Toron_1
59: QueenHazel_1
60: Brujita_1 + 1
61: HC_01
62: Babsiella_1
63: Xula_1
64: Nebkiss_1
65: Gaia_1
66: Ponzi_41
67: DS6A_1
68: Ibantik_65
69: Samy_4

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 224399 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224399 has 129 members, 22 are drafts.

Phages represented in each track:
- Track 1 : Farewell_1
- Track 2 : Sparky_1
- Track 3 : AinMach_1
- Track 4 : Soondubu_1
- Track 5 : Exile_1
- Track 6 : IttyBittyPiggy_1
- Track 7 : Reedo_1
- Track 8 : MissSwiss_1
- Track 9 : London_1, Eraser_1, Elezi_1, Lizalica_1, Subaru_1, Niobe_1, Jstan_1
- Track 10 : Yang_1, JuneStar_1
- Track 11 : Warda_1, Cyan_1, YesChef_1, Tbone_1, JohnDoe_1, Kaylissa_1, Tutumahutu_1, Simpson_1, Joemato_1, Lego_1, Powerpuff_1
- Track 12 : Pixelle_1, Amyev_1, Tian_1
- Track 13 : Sue2_1
- Track 14 : Tallboi_1, ObiToo_1, DrSierra_1
- Track 15 : VResidence_1
- Track 16 : Berrie_1
- Track 17 : Nitro_1
- Track 18 : AEgle_1, DrManhattan_1, Turab_1, Adolin_1, Adumb2043_1
- Track 19 : KeAlii_1
- Track 20 : Mudpuppy_1
- Track 21 : Crewmate_1, Iter_1, Ascela_1
- Track 22 : Cassia_1, Pumpkins_1
- Track 23 : Asa16_1
- Track 24 : Community_2, Phives_2, Tuck_2
- Track 25 : Shaffner_1
- Track 26 : Wildwest_2
- Track 27 : TforTroy_1
- Track 28 : MaGuCo_1
- Track 29 : Liebe_1, Maureen_1
- Track 30 : JasmineDragon_1, ShakeItOph_1, MiniMommy_1
- Track 31 : Emotion_1
- Track 32 : VroomVroom_1
- Track 33 : LadyAstra_1
- Track 34 : Gumpizza_1, Giorgio_1, Moss_1, Mysterium_1, Halsey_1, Beaupre_1, Stuu_1, Ashes_1, RockScotty_1, SpecialK_1
- Track 35 : Sabourin_1, Cappuccino_1, Gambol_1, Donkey_1, Kalimba_1

• Track 36 : Sooty_1
• Track 37 : Spooks_47
• Track 38 : Bimmel_44
• Track 39 : Success_49
• Track 40 : Pytheas_1, EnalisNailo_1, Jablanski_1, Posh_1, BeeGee_1, Confidence_1, EMsquaredA_1, LonelyBoi_1, Floral_1, Marteena_1, BritBrat_1, Pollux_1, Bradissa_1
• Track 41 : Cashline_1
• Track 42 : Wrigley_1
• Track 43 : Angelique_1
• Track 44 : Lilas_1
• Track 45 : Mabodamaca_1
• Track 46 : Cen1621_1
• Track 47 : Honk_1
• Track 48 : Barnstormer_1
• Track 49 : UtzChips_1
• Track 50 : Percival_1
• Track 51 : Gretchen_1
• Track 52 : Floof_1
• Track 53 : Caron_1
• Track 54 : SuMoo_1
• Track 55 : TChen_1, LunaStella_1
• Track 56 : ThetaBob_1
• Track 57 : Renaud18_1
• Track 58 : Toron_1
• Track 59 : QueenHazel_1
• Track 60 : Brujita_1, Island3_1
• Track 61 : HC_01
• Track 62 : Babsiella_1
• Track 63 : Xula_1
• Track 64 : Nebkiss_1
• Track 65 : Gaia_1
• Track 66 : Ponzi_41
• Track 67 : DS6A_1
• Track 68 : Ibantik_65
• Track 69 : Samy_4

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 26, it was called in 78 of the 107 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AEgle_1, Adolin_1, Adumb2043_1, AinMach_1, Angelique_1, Asa16_1, Ascela_1, Babsiella_1, BeeGee_1, Berrie_1, Bradissa_1, BritBrat_1, Cashline_1, Cassia_1, Community_2, Confidence_1, Crewmate_1, Cyan_1, DS6A_1, DrManhattan_1, DrSierra_1, EMsquaredA_1, Elezi_1, Emotion_1, EnalisNailo_1, Eraser_1, Exile_1, Floral_1, Gaia_1, HC_01, Iter_1, IttyBittyPiggy_1, Jablanski_1, JasmineDragon_1, Joemato_1, JohnDoe_1, Jstan_1, JuneStar_1, Kaylissa_1, KeAlii_1, LadyAstra_1, Lego_1, Liebe_1, Lizalica_1, London_1, LonelyBoi_1, LunaStella_1, MaGuCo_1,

Marteena_1, Maureen_1, MiniMommy_1, MissSwiss_1, Mudpuppy_1, Nebkiss_1, Niobe_1, Nitro_1, ObiToo_1, Phives_2, Pollux_1, Posh_1, Powerpuff_1, Pumpkins_1, Pytheas_1, QueenHazel_1, Reedo_1, Renaud18_1, Samy_4, Shaffner_1, ShakeItOph_1, Simpson_1, Soondubu_1, Sparky_1, Subaru_1, Sue2_1, TChen_1, Tallboi_1, Tbone_1, TforTroy_1, ThetaBob_1, Toron_1, Tuck_2, Turab_1, Tutumahutu_1, VResidence_1, VroomVroom_1, Warda_1, Wildwest_2, Wrigley_1, Xula_1, Yang_1, YesChef_1,

Genes that have the "Most Annotated" start but do not call it:
• Brujita_1, Farewell_1, Island3_1, Lilas_1,

Genes that do not have the "Most Annotated" start:
• Amyev_1, Ashes_1, Barnstormer_1, Beaupre_1, Bimmel_44, Cappuccino_1, Caron_1, Cen1621_1, Donkey_1, Floof_1, Gambol_1, Giorgio_1, Gretchen_1, Gumpizza_1, Halsey_1, Honk_1, Ibantik_65, Kalimba_1, Mabodamaca_1, Moss_1, Mysterium_1, Percival_1, Pixelle_1, Ponzi_41, RockScotty_1, Sabourin_1, Sooty_1, SpecialK_1, Spooks_47, Stuu_1, SuMoo_1, Success_49, Tian_1, UtzChips_1,

Summary by start number:

Start 10:
• Found in 1 of 129 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 107
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Farewell_1 (AF),

Start 22:
• Found in 20 of 129 (15.5%) of genes in pham
• Manual Annotations of this start: 1 of 107
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Lilas_1 (CY1),

Start 23:
• Found in 2 of 129 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 107
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Brujita_1 (I1), Island3_1 (I1),

Start 25:
• Found in 3 of 129 (2.3%) of genes in pham
• Manual Annotations of this start: 2 of 107
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amyev_1 (AZ1), Pixelle_1 (AZ1), Tian_1 (AZ1),

Start 26:
• Found in 95 of 129 (73.6%) of genes in pham
• Manual Annotations of this start: 78 of 107
• Called 95.8% of time when present
• Phage (with cluster) where this start called: AEgle_1 (AZ1), Adolin_1 (AZ1), Adumb2043_1 (AZ1), AinMach_1 (AZ), Angelique_1 (CY1), Asa16_1 (AZ1), Ascela_1 (AZ1), Babsiella_1 (I1), BeeGee_1 (CY), Berrie_1 (AZ1), Bradissa_1 (CY1), BritBrat_1 (CY2), Cashline_1 (CY), Cassia_1 (AZ1), Community_2 (AZ1),

Confidence_1 (CY1), Crewmate_1 (AZ1), Cyan_1 (AZ1), DS6A_1 (singleton), DrManhattan_1 (AZ1), DrSierra_1 (AZ1), EMsquaredA_1 (CY1), Elezi_1 (AZ1), Emotion_1 (AZ4), EnalisNailo_1 (CY1), Eraser_1 (AZ1), Exile_1 (AZ), Floral_1 (CY1), Gaia_1 (X), HC_01 (I1), Iter_1 (AZ1), IttyBittyPiggy_1 (AZ1), Jablanski_1 (CY), JasmineDragon_1 (AZ4), Joemato_1 (AZ1), JohnDoe_1 (AZ1), Jstan_1 (AZ1), JuneStar_1 (AZ1), Kaylissa_1 (AZ1), KeAlii_1 (AZ1), LadyAstra_1 (AZ4), Lego_1 (AZ1), Liebe_1 (AZ2), Lizalica_1 (AZ1), London_1 (AZ1), LonelyBoi_1 (CY), LunaStella_1 (F4), MaGuCo_1 (AZ2), Marteena_1 (CY1), Maureen_1 (AZ2), MiniMommy_1 (AZ4), MissSwiss_1 (AZ1), Mudpuppy_1 (AZ1), Nebkiss_1 (X), Niobe_1 (AZ1), Nitro_1 (AZ1), ObiToo_1 (AZ1), Phives_2 (AZ1), Pollux_1 (CY1), Posh_1 (CY), Powerpuff_1 (AZ1), Pumpkins_1 (AZ1), Pytheas_1 (CY), QueenHazel_1 (I1), Reedo_1 (AZ1), Renaud18_1 (F4), Samy_4 (singleton), Shaffner_1 (AZ1), ShakeItOph_1 (AZ4), Simpson_1 (AZ1), Soondubu_1 (AZ), Sparky_1 (AF), Subaru_1 (AZ1), Sue2_1 (AZ1), TChen_1 (F4), Tallboi_1 (AZ1), Tbone_1 (AZ1), TforTroy_1 (AZ1), ThetaBob_1 (F4), Toron_1 (F6), Tuck_2 (AZ1), Turab_1 (AZ1), Tutumahutu_1 (AZ1), VResidence_1 (AZ1), VroomVroom_1 (AZ4), Warda_1 (AZ1), Wildwest_2 (AZ1), Wrigley_1 (CY), Xula_1 (I1), Yang_1 (AZ1), YesChef_1 (AZ1),

Start 27:
• Found in 26 of 129 (20.2%) of genes in pham
• Manual Annotations of this start: 19 of 107
• Called 96.2% of time when present
• Phage (with cluster) where this start called: Ashes_1 (AZ5), Barnstormer_1 (EH), Beaupre_1 (AZ5), Cappuccino_1 (AZ5), Caron_1 (EH), Cen1621_1 (EH), Donkey_1 (AZ5), Floof_1 (EH), Gambol_1 (AZ5), Giorgio_1 (AZ5), Gretchen_1 (EH), Gumpizza_1 (AZ5), Halsey_1 (AZ5), Honk_1 (EH), Kalimba_1 (AZ5), Moss_1 (AZ5), Mysterium_1 (AZ5), Percival_1 (EH), RockScotty_1 (AZ5), Sabourin_1 (AZ5), Sooty_1 (AZ5), SpecialK_1 (AZ5), Stuu_1 (AZ5), SuMoo_1 (EH), UtzChips_1 (EH),

Start 28:
• Found in 5 of 129 (3.9%) of genes in pham
• Manual Annotations of this start: 3 of 107
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bimmel_44 (BT), Ibantik_65 (singleton), Ponzi_41 (singleton), Spooks_47 (BT), Success_49 (BT),

Start 31:
• Found in 7 of 129 (5.4%) of genes in pham
• Manual Annotations of this start: 1 of 107
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Mabodamaca_1 (EH),

Summary by clusters:

There are 16 clusters represented in this pham: CY2, singleton, F4, EH, F6, AF, I1, CY1, BT, CY, X, AZ1, AZ2, AZ, AZ4, AZ5,

Info for manual annotations of cluster AF:
•Start number 10 was manually annotated 1 time for cluster AF.
•Start number 26 was manually annotated 1 time for cluster AF.

Info for manual annotations of cluster AZ:

•Start number 26 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:
•Start number 25 was manually annotated 2 times for cluster AZ1.
•Start number 26 was manually annotated 42 times for cluster AZ1.

Info for manual annotations of cluster AZ2:
•Start number 26 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ4:
•Start number 26 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster AZ5:
•Start number 27 was manually annotated 10 times for cluster AZ5.

Info for manual annotations of cluster BT:
•Start number 28 was manually annotated 1 time for cluster BT.

Info for manual annotations of cluster CY:
•Start number 26 was manually annotated 7 times for cluster CY.

Info for manual annotations of cluster CY1:
•Start number 22 was manually annotated 1 time for cluster CY1.
•Start number 26 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 26 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster EH:
•Start number 27 was manually annotated 9 times for cluster EH.
•Start number 31 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster F4:
•Start number 26 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster I1:
•Start number 23 was manually annotated 2 times for cluster I1.
•Start number 26 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster X:
•Start number 26 was manually annotated 2 times for cluster X.

Gene Information:

Gene: AEgle_1 Start: 85, Stop: 540, Start Num: 26
Candidate Starts for AEgle_1:
(Start: 26 @85 has 78 MA's), (50, 214), (103, 511), (106, 520),

Gene: Adolin_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Adolin_1:

(Start: 26 @85 has 78 MA's), (50, 214), (103, 508), (106, 517),

Gene: Adumb2043_1 Start: 85, Stop: 540, Start Num: 26
Candidate Starts for Adumb2043_1:
(Start: 26 @85 has 78 MA's), (50, 214), (103, 511), (106, 520),

Gene: AinMach_1 Start: 140, Stop: 574, Start Num: 26
Candidate Starts for AinMach_1:
(Start: 26 @140 has 78 MA's), (Start: 31 @167 has 1 MA's), (36, 212), (43, 239), (54, 281), (67, 359), (88, 473), (92, 509), (93, 512),

Gene: Amyev_1 Start: 84, Stop: 536, Start Num: 25
Candidate Starts for Amyev_1:
(6, 12), (17, 54), (Start: 25 @84 has 2 MA's), (92, 471), (103, 510),

Gene: Angelique_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Angelique_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (90, 436), (99, 472), (102, 481),

Gene: Asa16_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Asa16_1:
(Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (98, 489), (103, 510), (106, 519),

Gene: Ascela_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Ascela_1:
(Start: 26 @85 has 78 MA's), (92, 472), (98, 490), (103, 511),

Gene: Ashes_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Ashes_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Babsiella_1 Start: 67, Stop: 540, Start Num: 26
Candidate Starts for Babsiella_1:
(15, 16), (Start: 26 @67 has 78 MA's), (41, 151), (47, 187), (65, 292), (69, 304), (70, 307), (78, 340), (80, 352), (87, 403), (104, 499), (107, 508),

Gene: Barnstormer_1 Start: 114, Stop: 596, Start Num: 27
Candidate Starts for Barnstormer_1:
(Start: 22 @108 has 1 MA's), (Start: 27 @114 has 19 MA's), (74, 363), (86, 447), (93, 504), (98, 519),

Gene: Beaupre_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Beaupre_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: BeeGee_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for BeeGee_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Berrie_1 Start: 83, Stop: 535, Start Num: 26
Candidate Starts for Berrie_1:
(Start: 26 @83 has 78 MA's), (92, 470), (98, 488), (103, 509),

Gene: Bimmel_44 Start: 24939, Stop: 25364, Start Num: 28
Candidate Starts for Bimmel_44:
(Start: 28 @24939 has 3 MA's), (34, 24984), (39, 25005), (70, 25158), (78, 25191), (88, 25260), (98, 25320), (101, 25326),

Gene: Bradissa_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Bradissa_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: BritBrat_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for BritBrat_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Brujita_1 Start: 62, Stop: 541, Start Num: 23
Candidate Starts for Brujita_1:
(14, 14), (Start: 23 @62 has 2 MA's), (Start: 26 @68 has 78 MA's), (41, 152), (65, 293), (69, 305), (70, 308), (78, 341), (94, 458), (107, 509),

Gene: Cappuccino_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Cappuccino_1:
(Start: 27 @138 has 19 MA's), (43, 231),

Gene: Caron_1 Start: 114, Stop: 593, Start Num: 27
Candidate Starts for Caron_1:
(Start: 22 @108 has 1 MA's), (Start: 27 @114 has 19 MA's), (Start: 31 @135 has 1 MA's), (37, 183), (74, 363), (86, 447), (98, 516),

Gene: Cashline_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Cashline_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (56, 250), (59, 265), (70, 325), (80, 370), (90, 436), (99, 472), (102, 481),

Gene: Cassia_1 Start: 86, Stop: 550, Start Num: 26
Candidate Starts for Cassia_1:
(Start: 26 @86 has 78 MA's), (64, 305), (98, 503), (106, 533),

Gene: Cen1621_1 Start: 100, Stop: 576, Start Num: 27
Candidate Starts for Cen1621_1:
(21, 88), (Start: 27 @100 has 19 MA's), (57, 250), (72, 322), (79, 361), (81, 376), (91, 457), (96, 472),

Gene: Community_2 Start: 1157, Stop: 1609, Start Num: 26
Candidate Starts for Community_2:
(3, 1052), (Start: 26 @1157 has 78 MA's), (92, 1544), (98, 1562), (103, 1583),

Gene: Confidence_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Confidence_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Crewmate_1 Start: 85, Stop: 549, Start Num: 26

Candidate Starts for Crewmate_1:
(Start: 26 @85 has 78 MA's), (92, 484), (98, 502), (103, 523),

Gene: Cyan_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Cyan_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: DS6A_1 Start: 246, Stop: 680, Start Num: 26
Candidate Starts for DS6A_1:
(Start: 26 @246 has 78 MA's), (32, 288), (37, 333), (49, 384), (59, 435), (72, 504), (84, 576), (87, 594), (95, 639), (99, 648), (105, 675),

Gene: Donkey_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Donkey_1:
(Start: 27 @138 has 19 MA's), (43, 231),

Gene: DrManhattan_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for DrManhattan_1:
(Start: 26 @85 has 78 MA's), (50, 214), (103, 508), (106, 517),

Gene: DrSierra_1 Start: 87, Stop: 551, Start Num: 26
Candidate Starts for DrSierra_1:
(Start: 26 @87 has 78 MA's), (103, 525),

Gene: EMsquaredA_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for EMsquaredA_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Elezi_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Elezi_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: Emotion_1 Start: 130, Stop: 558, Start Num: 26
Candidate Starts for Emotion_1:
(Start: 26 @130 has 78 MA's), (59, 310), (79, 415),

Gene: EnalisNailo_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for EnalisNailo_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Eraser_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Eraser_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: Exile_1 Start: 140, Stop: 571, Start Num: 26
Candidate Starts for Exile_1:
(9, 71), (Start: 26 @140 has 78 MA's), (103, 545), (106, 554),

Gene: Farewell_1 Start: 34, Stop: 528, Start Num: 10
Candidate Starts for Farewell_1:

(Start: 10 @34 has 1 MA's), (18, 73), (Start: 26 @97 has 78 MA's), (43, 208), (59, 280), (82, 406), (84, 421), (99, 496),

Gene: Floof_1 Start: 122, Stop: 601, Start Num: 27
Candidate Starts for Floof_1:
(Start: 27 @122 has 19 MA's), (40, 200), (68, 350), (74, 371), (85, 446), (103, 545),

Gene: Floral_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Floral_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Gaia_1 Start: 129, Stop: 578, Start Num: 26
Candidate Starts for Gaia_1:
(24, 126), (Start: 26 @129 has 78 MA's), (29, 144), (33, 186), (37, 213), (45, 264), (48, 279), (54, 315), (59, 342), (61, 357), (70, 402), (78, 438), (82, 468), (83, 471), (90, 516), (99, 549), (100, 552),

Gene: Gambol_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Gambol_1:
(Start: 27 @138 has 19 MA's), (43, 231),

Gene: Giorgio_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Giorgio_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Gretchen_1 Start: 128, Stop: 607, Start Num: 27
Candidate Starts for Gretchen_1:
(Start: 27 @128 has 19 MA's), (68, 356), (74, 377), (85, 452), (92, 515), (103, 551),

Gene: Gumpizza_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Gumpizza_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: HC_01 Start: 67, Stop: 540, Start Num: 26
Candidate Starts for HC_01:
(Start: 26 @67 has 78 MA's), (41, 151), (65, 292), (69, 304), (70, 307), (78, 340), (80, 352), (87, 403), (107, 508),

Gene: Halsey_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Halsey_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Honk_1 Start: 161, Stop: 634, Start Num: 27
Candidate Starts for Honk_1:
(19, 128), (Start: 27 @161 has 19 MA's), (72, 383), (81, 437), (85, 467), (96, 530),

Gene: Ibantik_65 Start: 27614, Stop: 28042, Start Num: 28
Candidate Starts for Ibantik_65:
(Start: 28 @27614 has 3 MA's), (66, 27824), (67, 27827), (78, 27869), (88, 27938), (96, 27995), (97, 27998),

Gene: Island3_1 Start: 62, Stop: 541, Start Num: 23
Candidate Starts for Island3_1:

(14, 14), (Start: 23 @62 has 2 MA's), (Start: 26 @68 has 78 MA's), (41, 152), (65, 293), (69, 305), (70, 308), (78, 341), (94, 458), (107, 509),

Gene: Iter_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Iter_1:
(Start: 26 @85 has 78 MA's), (92, 472), (98, 490), (103, 511),

Gene: IttyBittyPiggy_1 Start: 86, Stop: 538, Start Num: 26
Candidate Starts for IttyBittyPiggy_1:
(Start: 26 @86 has 78 MA's), (50, 215), (92, 473), (98, 491), (106, 521),

Gene: Jablanski_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Jablanski_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: JasmineDragon_1 Start: 132, Stop: 560, Start Num: 26
Candidate Starts for JasmineDragon_1:
(Start: 26 @132 has 78 MA's), (79, 417), (98, 534),

Gene: Joemato_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Joemato_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: JohnDoe_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for JohnDoe_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Jstan_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Jstan_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: JuneStar_1 Start: 84, Stop: 548, Start Num: 26
Candidate Starts for JuneStar_1:
(17, 54), (Start: 26 @84 has 78 MA's), (98, 501), (106, 531),

Gene: Kalimba_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Kalimba_1:
(Start: 27 @138 has 19 MA's), (43, 231),

Gene: Kaylissa_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Kaylissa_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: KeAlii_1 Start: 69, Stop: 521, Start Num: 26
Candidate Starts for KeAlii_1:
(Start: 26 @69 has 78 MA's), (103, 492), (106, 501),

Gene: LadyAstra_1 Start: 132, Stop: 563, Start Num: 26
Candidate Starts for LadyAstra_1:
(Start: 26 @132 has 78 MA's), (42, 228), (92, 519),

Gene: Lego_1 Start: 84, Stop: 536, Start Num: 26

Candidate Starts for Lego_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Liebe_1 Start: 80, Stop: 535, Start Num: 26
Candidate Starts for Liebe_1:
(Start: 26 @80 has 78 MA's), (66, 311),

Gene: Lilas_1 Start: 73, Stop: 504, Start Num: 22
Candidate Starts for Lilas_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Lizalica_1 Start: 85, Stop: 534, Start Num: 26
Candidate Starts for Lizalica_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 469), (98, 487), (103, 508), (106, 517),

Gene: London_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for London_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: LonelyBoi_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for LonelyBoi_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: LunaStella_1 Start: 55, Stop: 477, Start Num: 26
Candidate Starts for LunaStella_1:
(5, 7), (7, 16), (Start: 26 @55 has 78 MA's), (35, 136), (59, 238), (72, 307), (73, 310), (84, 376), (90, 409), (99, 445), (102, 454),

Gene: MaGuCo_1 Start: 80, Stop: 535, Start Num: 26
Candidate Starts for MaGuCo_1:
(Start: 26 @80 has 78 MA's), (66, 311), (93, 473),

Gene: Mabodamaca_1 Start: 146, Stop: 604, Start Num: 31
Candidate Starts for Mabodamaca_1:
(Start: 27 @125 has 19 MA's), (Start: 31 @146 has 1 MA's), (74, 374), (86, 458), (98, 527),

Gene: Marteena_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Marteena_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Maureen_1 Start: 80, Stop: 535, Start Num: 26
Candidate Starts for Maureen_1:
(Start: 26 @80 has 78 MA's), (66, 311),

Gene: MiniMommy_1 Start: 132, Stop: 560, Start Num: 26
Candidate Starts for MiniMommy_1:
(Start: 26 @132 has 78 MA's), (79, 417), (98, 534),

Gene: MissSwiss_1 Start: 87, Stop: 554, Start Num: 26
Candidate Starts for MissSwiss_1:

(Start: 26 @87 has 78 MA's), (50, 216), (89, 453), (98, 504), (103, 525), (106, 534),

Gene: Moss_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Moss_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Mudpuppy_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Mudpuppy_1:
(6, 12), (17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Mysterium_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Mysterium_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Nebkiss_1 Start: 130, Stop: 579, Start Num: 26
Candidate Starts for Nebkiss_1:
(8, 58), (Start: 26 @130 has 78 MA's), (29, 145), (33, 187), (37, 214), (43, 238), (44, 262), (46, 268), (50, 283), (51, 286), (57, 331), (59, 343), (62, 364), (80, 451), (90, 517), (99, 550), (100, 553),

Gene: Niobe_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Niobe_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: Nitro_1 Start: 86, Stop: 538, Start Num: 26
Candidate Starts for Nitro_1:
(Start: 26 @86 has 78 MA's), (50, 215), (92, 473), (103, 512), (106, 521),

Gene: ObiToo_1 Start: 85, Stop: 549, Start Num: 26
Candidate Starts for ObiToo_1:
(Start: 26 @85 has 78 MA's), (103, 523),

Gene: Percival_1 Start: 128, Stop: 607, Start Num: 27
Candidate Starts for Percival_1:
(12, 56), (Start: 27 @128 has 19 MA's), (30, 140), (68, 356), (74, 377), (85, 452), (92, 515), (103, 551),

Gene: Phives_2 Start: 1157, Stop: 1609, Start Num: 26
Candidate Starts for Phives_2:
(3, 1052), (Start: 26 @1157 has 78 MA's), (92, 1544), (98, 1562), (103, 1583),

Gene: Pixelle_1 Start: 84, Stop: 536, Start Num: 25
Candidate Starts for Pixelle_1:
(6, 12), (17, 54), (Start: 25 @84 has 2 MA's), (92, 471), (103, 510),

Gene: Pollux_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Pollux_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Ponzi_41 Start: 22312, Stop: 22740, Start Num: 28
Candidate Starts for Ponzi_41:
(Start: 28 @22312 has 3 MA's), (71, 22534), (88, 22633), (106, 22726),

Gene: Posh_1 Start: 82, Stop: 504, Start Num: 26

Candidate Starts for Posh_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: Powerpuff_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Powerpuff_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Pumpkins_1 Start: 86, Stop: 550, Start Num: 26
Candidate Starts for Pumpkins_1:
(Start: 26 @86 has 78 MA's), (64, 305), (98, 503), (106, 533),

Gene: Pytheas_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Pytheas_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (90, 436), (99, 472), (102, 481),

Gene: QueenHazel_1 Start: 67, Stop: 540, Start Num: 26
Candidate Starts for QueenHazel_1:
(20, 55), (Start: 26 @67 has 78 MA's), (41, 151), (47, 187), (65, 292), (69, 304), (70, 307), (78, 340), (80, 352), (87, 403), (104, 499), (107, 508),

Gene: Reedo_1 Start: 95, Stop: 547, Start Num: 26
Candidate Starts for Reedo_1:
(Start: 26 @95 has 78 MA's), (Start: 31 @122 has 1 MA's), (50, 224), (98, 497), (103, 518), (106, 527),

Gene: Renaud18_1 Start: 55, Stop: 477, Start Num: 26
Candidate Starts for Renaud18_1:
(7, 16), (Start: 26 @55 has 78 MA's), (35, 136), (59, 238), (72, 307), (84, 376), (99, 445), (102, 454),

Gene: RockScotty_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for RockScotty_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Sabourin_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Sabourin_1:
(Start: 27 @138 has 19 MA's), (43, 231),

Gene: Samy_4 Start: 1334, Stop: 1780, Start Num: 26
Candidate Starts for Samy_4:
(Start: 26 @1334 has 78 MA's), (53, 1484), (60, 1523), (70, 1577), (81, 1631),

Gene: Shaffner_1 Start: 84, Stop: 548, Start Num: 26
Candidate Starts for Shaffner_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (98, 501), (106, 531),

Gene: ShakeItOph_1 Start: 132, Stop: 560, Start Num: 26
Candidate Starts for ShakeItOph_1:
(Start: 26 @132 has 78 MA's), (79, 417), (98, 534),

Gene: Simpson_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Simpson_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Soondubu_1 Start: 140, Stop: 571, Start Num: 26
Candidate Starts for Soondubu_1:
(Start: 26 @140 has 78 MA's), (103, 545), (106, 554),

Gene: Sooty_1 Start: 138, Stop: 578, Start Num: 27
Candidate Starts for Sooty_1:
(2, 12), (Start: 27 @138 has 19 MA's), (43, 231),

Gene: Sparky_1 Start: 98, Stop: 529, Start Num: 26
Candidate Starts for Sparky_1:
(4, 2), (11, 35), (18, 74), (Start: 26 @98 has 78 MA's), (43, 209), (59, 281), (82, 407), (84, 422), (99, 497),

Gene: SpecialK_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for SpecialK_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: Spooks_47 Start: 26248, Stop: 26673, Start Num: 28
Candidate Starts for Spooks_47:
(Start: 28 @26248 has 3 MA's), (39, 26314), (64, 26449), (77, 26494), (88, 26569), (98, 26629), (101, 26635),

Gene: Stuu_1 Start: 139, Stop: 579, Start Num: 27
Candidate Starts for Stuu_1:
(Start: 27 @139 has 19 MA's), (43, 232),

Gene: SuMoo_1 Start: 124, Stop: 603, Start Num: 27
Candidate Starts for SuMoo_1:
(13, 58), (16, 79), (Start: 27 @124 has 19 MA's), (Start: 31 @145 has 1 MA's), (74, 373), (86, 457), (98, 526),

Gene: Subaru_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Subaru_1:
(Start: 26 @85 has 78 MA's), (50, 214), (92, 472), (98, 490), (103, 511), (106, 520),

Gene: Success_49 Start: 25367, Stop: 25792, Start Num: 28
Candidate Starts for Success_49:
(Start: 28 @25367 has 3 MA's), (34, 25412), (39, 25433), (64, 25568), (70, 25586), (78, 25619), (84, 25664), (88, 25688), (98, 25748), (101, 25754),

Gene: Sue2_1 Start: 75, Stop: 542, Start Num: 26
Candidate Starts for Sue2_1:
(6, 12), (Start: 26 @75 has 78 MA's), (Start: 31 @102 has 1 MA's), (58, 249), (75, 342), (103, 513), (106, 522),

Gene: TChen_1 Start: 55, Stop: 477, Start Num: 26
Candidate Starts for TChen_1:
(5, 7), (7, 16), (Start: 26 @55 has 78 MA's), (35, 136), (59, 238), (72, 307), (73, 310), (84, 376), (90, 409), (99, 445), (102, 454),

Gene: Tallboi_1 Start: 85, Stop: 537, Start Num: 26
Candidate Starts for Tallboi_1:

(Start: 26 @85 has 78 MA's), (103, 511),

Gene: Tbone_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Tbone_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: TforTroy_1 Start: 86, Stop: 550, Start Num: 26
Candidate Starts for TforTroy_1:
(Start: 26 @86 has 78 MA's), (38, 167), (64, 305), (98, 503), (106, 533),

Gene: ThetaBob_1 Start: 55, Stop: 477, Start Num: 26
Candidate Starts for ThetaBob_1:
(7, 16), (Start: 26 @55 has 78 MA's), (35, 136), (59, 238), (72, 307), (73, 310), (84, 376), (99, 445), (102, 454),

Gene: Tian_1 Start: 84, Stop: 536, Start Num: 25
Candidate Starts for Tian_1:
(6, 12), (17, 54), (Start: 25 @84 has 2 MA's), (92, 471), (103, 510),

Gene: Toron_1 Start: 55, Stop: 477, Start Num: 26
Candidate Starts for Toron_1:
(7, 16), (Start: 26 @55 has 78 MA's), (37, 142), (55, 214), (59, 238), (70, 298), (72, 307), (73, 310), (84, 376), (87, 394), (99, 445), (102, 454),

Gene: Tuck_2 Start: 1145, Stop: 1597, Start Num: 26
Candidate Starts for Tuck_2:
(3, 1040), (Start: 26 @1145 has 78 MA's), (92, 1532), (98, 1550), (103, 1571),

Gene: Turab_1 Start: 85, Stop: 540, Start Num: 26
Candidate Starts for Turab_1:
(Start: 26 @85 has 78 MA's), (50, 214), (103, 511), (106, 520),

Gene: Tutumahutu_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Tutumahutu_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: UtzChips_1 Start: 114, Stop: 596, Start Num: 27
Candidate Starts for UtzChips_1:
(Start: 22 @108 has 1 MA's), (Start: 27 @114 has 19 MA's), (74, 363), (86, 447), (98, 519),

Gene: VResidence_1 Start: 140, Stop: 604, Start Num: 26
Candidate Starts for VResidence_1:
(Start: 26 @140 has 78 MA's), (Start: 31 @167 has 1 MA's), (58, 314), (88, 503), (98, 557), (103, 578), (106, 587),

Gene: VroomVroom_1 Start: 132, Stop: 563, Start Num: 26
Candidate Starts for VroomVroom_1:
(Start: 26 @132 has 78 MA's), (42, 228), (76, 393), (92, 519),

Gene: Warda_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for Warda_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),

Gene: Wildwest_2 Start: 1032, Stop: 1481, Start Num: 26
Candidate Starts for Wildwest_2:
(1, 825), (Start: 26 @1032 has 78 MA's), (63, 1248), (103, 1455), (106, 1464),

Gene: Wrigley_1 Start: 82, Stop: 504, Start Num: 26
Candidate Starts for Wrigley_1:
(Start: 22 @73 has 1 MA's), (Start: 26 @82 has 78 MA's), (52, 226), (59, 265), (70, 325), (82, 388), (90, 436), (99, 472), (102, 481),

Gene: Xula_1 Start: 67, Stop: 540, Start Num: 26
Candidate Starts for Xula_1:
(20, 55), (Start: 26 @67 has 78 MA's), (41, 151), (47, 187), (65, 292), (69, 304), (70, 307), (78, 340), (80, 352), (87, 403), (107, 508),

Gene: Yang_1 Start: 84, Stop: 548, Start Num: 26
Candidate Starts for Yang_1:
(17, 54), (Start: 26 @84 has 78 MA's), (98, 501), (106, 531),

Gene: YesChef_1 Start: 84, Stop: 536, Start Num: 26
Candidate Starts for YesChef_1:
(17, 54), (Start: 26 @84 has 78 MA's), (50, 213), (92, 471), (103, 510), (106, 519),